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Sarnafil Division

January 6, 2006

Sent by E-mail to: canderson@icfconsulting.com

Re: ENERGY STAR® Program Requirements for Roof Products

Dear Mr. Anderson,

Sarnafil Inc. is a Charter Partner of the ENERGY STAR roof products program. We are avid supporters of the program and commend the EPA for working to keep the program current and relevant. Following are our comments to the proposed changes.

Draft 1 Partner Commitments

We would like to confirm our understanding of the last bullet on the first page. We read it to mean that printing the sentences shown in the draft: "When installed properly…. Building characteristics. Consult your product manufacturer" will satisfy points 1 to 3 listed in the same paragraph.

Draft 1 Eligibility Criteria

Although we understand the intent of the statement in point 3 on page 6, and do not object to the intent, we believe it may be mis-understood or mis-interpreted. We propose something along the lines of the following:

Some roof products, such as single ply membranes and some coatings are suitable for both low and steep slope applications. Such products will be qualified as ENERGY STAR compliant for Low-Slope and/ or Steep-Slope applications on the basis of the requirements outlined in Tables 1 and 2 below.

We agree with the proposed inclusion of a Thermal Emittance requirement.

We do not agree with the proposal to increase the Initial Solar Reflectance requirement from 0.65 to 0.70. We understand that this will bring the ENERGY STAR requirements in line with the California Energy Commission's criteria for Title 24. Additionally, as one of the leading proponents of highly reflective membranes, we fully support requiring as high a
an initial reflectance as practical. However, there is some resistance to highly reflective materials in some quarters. In some cases, the concern is justified. There have been claims that the glare from highly reflective roof surfaces has been a nuisance or potentially even a hazard (e.g. on an airport roof). Increasing the minimum reflectance to 0.70 limits the potential for using light greys or tans in such applications. We believe the EPA's goal can be achieved in another manner.

Using LEED's requirements for a Solar Reflectance Index (SRI) of 78 as a basic performance level we would propose, maintaining the initial reflectance at 0.65 and increasing the emittance requirement to 0.85. This would allow for some lighter colors to be used in cases were very highly reflective materials could be a problem, while still meeting LEED's SRI requirement.

With regards to reporting the aged reflectance data, we propose allowing, or even better encouraging, the reporting of a range of values. Such reporting would be more in line with what actually happens in the field. A single (average) number will not capture the fact that pollution levels, air borne particulate loadings, etc. vary between locations which will have an impact on the retained reflectivity. Reporting a range, rather than an average, would allow a designer to consider local conditions in assessing the aged reflectivity to use in his designs.

A provision should be made for allowing for emittance data from more accurate instruments than those covered by the listed ASTM procedures, such as LBNL's Bruker IFS 28 FTIR spectrometer. With regards to ASTM E408, which result is to be reported to the EPA: Near Normal or Hemispherical Emittance?

We support the proposed process for maintaining existing listings with an appropriate notation regarding the aged reflectivity values. This appears to us to be the most reasonable and fair approach.

Thank you for the opportunity to participate in the revision of the ENERGY STAR Roof Product Specification. Please do not hesitate to contact the undersigned at (800) 451-2502, extension 492 should any further clarification be required with regards to any of our comments.

Best regards
Sarnafil, Inc.

S.P. Graveline
Vice President Technical Services

Cc: B. Whelan, K. Foley, J. Rubenacker